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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



REPLACED BY
ART 34 AMDT

Applicant's or agent's file reference P61316PC00		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/NL 03/00675	International filing date (day/month/year) 03.10.2003	Priority date (day/month/year) 03.10.2002	
International Patent Classification (IPC) or both national classification and IPC C12C7/00			
Applicant NEDERLANDSE ORGANISATIE VOOR ...			

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 11.05.2004	Date of completion of this report 26.11.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Rinaldi, F Telephone No. +49 89 2399-7360 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/NL 03/00675**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-9 as originally filed

Claims, Numbers

1-10 filed with telefax on 14.09.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

see separate sheet

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

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EXAMINATION REPORT - SEPARATE SHEET**

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Re Item I

Basis of the report

- 1 The amendment in claim 1 is based on claim 1 and (reworded) claim 4 as internationally filed. The amendment in present claim 5 is based on p.7 l.3-4 of the application as internationally filed. Said amendments thus fulfill the requirement of (Art.34(2)(b) PCT).

Re Item V

Reasoned statement under Art.35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:
 - D1: SCRIBAN R; DUTHOY J P: "Le problème de la filtration au brassage - recherches sur le teig" CEREVISIA, vol. 2, no. 4, 1977, pages 133-149, XP009025135
 - D2: EP-A-0 544 643 (DOEHLER GMBH) 2 June 1993 (1993-06-02)
 - D3: US-A-4 355 047 (CHAUDHARY VINOD K ET AL) 19 October 1982 (1982-10-19)
 - D4: DE 10 88 004 B (ERSTE KULMBACHER ACTIEN EXPORT) 1 September 1960 (1960-09-01)
 - D5: DE 195 09 919 A (IREKS GMBH) 19 September 1996 (1996-09-19)
 - D6: DE 15 17 864 A (VNII PIVO BEZALKOGOLNOI I VINO) 29 January 1970 (1970-01-29)

Novelty

- 2 D1 discloses a method for preparing beer wherein a dough is formed from water and 20-25 wt% malt flour (p.134 col.2 last §-p.140 col.2 §1). D2 discloses a method for preparing beer wherein a dough is formed from water and 15 wt% malt flour. The dough is then diluted with more water (Example 1). D3 discloses a method for preparing beer wherein a dough is formed from water and 15-33 wt% malt flour (Examples 4, 7 and 12). D4 discloses a method for preparing beer from water and 40 wt% malt flour. D5 discloses kneaded doughs made from water and 11-45 wt% malt flour (see examples, especially examples 5, 7 and 8). D6 discloses doughs made from water and up to 16 wt% malt (p.3 §3; p.4 last §-p.6 §1). The dough is used for the production of beverages. However, none of the documents of the prior art discloses a method for producing a beverage wherein

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malt flour is first kneaded with water and then further diluted.

Inventive step

- 3 The process of claim 1-10 including kneading step prior to dilution solves unexpectedly the technical problem of decomposing malt polymers (see p.1 l.16-23; p.4 l.18-21; p.6 l.9-13; p.7 l.8-22) thus rendering the brewing process more efficient.

CLAIMS

1. A method for preparing a beverage, wherein a dough – which has been prepared from malt flour and water – is diluted with water to a mixture of malt flour in water, the diluted mixture containing 11 to 45 wt.% malt flour, based on the total weight of the mixture.
- 5 2. A method according to claim 1, wherein the mixture of malt flour in water is filtered and/or extracted.
3. A method according to any one of the preceding claims, wherein the dough has a consistency of at least 100 Brabender Farinograph units.
4. A method according to any one of the preceding claims, wherein the
10 dough is kneaded previous to the dilution.
5. A method according to claim 4, wherein the dough is kneaded for at least 15 min, preferably 30-45 min.
6. A method according to any one of the preceding claims, wherein the dough is kneaded until the supplied energy is 10-100 kJ/kg malt flour.
- 15 7. A method according to any one of the preceding claims, wherein the dough is kneaded at a temperature of 15-60°C, preferably of 20-45°C.
8. A method according to any one of the preceding claims, wherein the malt flour comprises barley malt flour, wheat malt flour or a combination thereof.
- 20 9. A method according to claim 8, wherein the malt flour has been prepared from an amount of barley which substantially consists of glassy grains, non-germinated grains and/or incompletely germinated grains.
10. A method according to any one of the preceding claims, wherein the beverage is a fermented beverage, preferably beer.
- 25 11. A mixture of malt in water or beverage obtainable by means of a method according to any one of the preceding claims.

12. A dough obtainable by means of a method according to any one of claims 1-10 having a consistency of at least 100 Brabender Farinograph units, preferably of at least 150 Brabender Farinograph units, more preferably of at least 300 Brabender Farinograph units.

5 13. A dough according to claim 12, wherein the malt flour content is at least 45 wt.%, preferably 50-65 wt.%, and the water content is maximally 45 wt.%, preferably 35-44 wt.%.

14. A dough according to any one of claims 12 or 13, wherein the malt flour comprises barley malt flour.

10 15. A use of a dough or mixture of malt in water according to any one of claims 11-14 for the preparation of a fermented beverage, preferably beer.

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